

BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, D.C. 20268-0001

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POSTAL RATE COMMISSION  
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS HUNTER TO  
PRESIDING OFFICER'S INFORMATION REQUEST NO. 15, QUESTION 1  
(July 12, 2000)

The United States Postal Service hereby provides the response of witness  
Hunter to Presiding Officer's Information Request No. 15, question 1.

The question is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.  
Chief Counsel, Ratemaking

*K N Hollies*

Kenneth N. Hollies

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon all  
participants of record in this proceeding in accordance with section 12 of the Rules of  
Practice.

*K N Hollies*

Kenneth N. Hollies

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July 12, 2000

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1. Table 2 in the Attachment to the response to Interrogatory UPS/USPS-T5-2 presents a coefficient of variation (C.V.) of 0.96 percent for the FY 1998 BRPW-estimated Parcel Post volume of 234,892 thousand pieces. Please show how the value of C.V. was calculated.

**RESPONSE.** Because the PERMIT System is a near but not complete census of permit imprint Parcel Post volume, a measure of sampling error was reported for this mail category. To obtain a measure of sampling error for the permit imprint component of Parcel Post for the base year 1998 period, the count of 43 non-automated offices obtained from the findings of the then recently conducted PQ2-97 survey is required in addition to the PERMIT System data. The PERMIT System offices are considered a sample from the population of all permit-imprint Parcel Post reporting offices nationwide, and for estimator precision purposes, a simple random sample proxy assumption is made in order to obtain an estimate of the sampling error for the permit imprint component of Parcel Post volume. The proxy assumption is necessary and made only for the interim period between the start up for this category under the BRPW occurring in FY 1998 and the establishment of a newly developed trial balance control account specifically for permit imprint Parcel Post. To construct an estimate of the sampling variance for the estimate of total permit imprint Parcel Post volume, the PFY 1998 quarterly data are first converted to the GFY 1998 (Base Year) period and a simple random sample design based estimate (with finite population correction =  $1 - n/N$ ) of the variance of the estimated total volume is computed for each quarter. The square root of the summed quarterly estimates of sampling variance is then divided by the BY 1998 permit imprint Parcel Post volume

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estimate to obtain the estimated C.V. for the estimated volume. The reported C.V. estimate of 0.0096 was constructed using the program code provided in USPS-LR-I-26/R2000-1 which was designed to estimate the sampling error for estimates derived from actual supplemental non-automated office panels used in the BRPW for other than permit imprint Standard Mail B. In general, these other estimates are based on actual stratified random sample based panels and the estimators reflect this design type or a combined (strata) ratio estimator (where a trial balance control is available) to compute the sampling errors for the estimates of RPW totals. For the FY 1998 period, however, the PERMIT System data were expanded outside the BRPW model (in the RPW adjustment model) using the attained survey ratio of 1.00920754 constructed from the revenue for all offices divided by the revenue for the automated office segment. The reported estimated C.V. of 0.0096 is therefore based on a sample from a population of size 1.00920754 times greater than the PERMIT System size. Upon review of the applicability of the code to the special case required for permit imprint Parcel Post for the FY 1998 period, it was found that because there was no explicit supplemental panel of nonautomated offices for the period, the variance computation code is not able to utilize the standard reciprocal sampling fraction expansion of the PERMIT System data technique as required to incorporate the non-automated office component comprised of 43 offices. As a result, the sampling error is alternatively recalculated to take into consideration the non-automated office count obtained from the FY 1997 survey, and an

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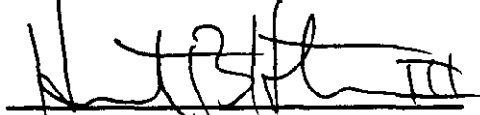
estimated C.V. of 0.0158 is obtained. This recalculated value is 0.0062 larger than the 0.0096 reported and is shown in column (C) of the table below.

PQ-98	(n)	(N)	var(P') (E12) (A)	P' =VOL (000) (B)	C.V.' = SQRT(A) /(B) (C)
1	1,896	1,938	3.192	52,206	
2	1,919	1,962	2.716	55,728	
3	1,965	2,008	2.865	53,293	
4	2,011	2,052	4.953	73,665	
All	-	-	13.727	234,892	0.015773

In the table above, var(P') is the estimated sampling variance for the postal quarter estimate P' of total volume. The population and sample sizes (N) and (n), respectively, are shown for each quarter. The quarterly population and sample sizes change slightly due to movement between the automated and non-automated office sub-populations.

# DECLARATION

I, Herbert B. Hunter III, hereby declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information and belief.

A handwritten signature in black ink, appearing to read 'H. B. Hunter III', written over a horizontal line.

Herbert B. Hunter III

Date: July 12, 2000